Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	GEN Docket No. 00-32
The 4.9 GHz Band Transferred from Federal Government Use	)	
	)	

REPLY TO COMMENTS
OF THE OFFICE OF THE CHIEF TECHNOLOGY OFFICER,
GOVERNMENT OF THE DISTRICT OF COLUMBIA

The Office of the Chief Technology Officer of the Government of the District of Columbia ("OCTO") is pleased offer this "reply to comments" regarding the Notice of Proposed Rulemaking ("Notice") in the captioned proceeding, FCC 02-47[1]. OCTO operates Public Safety Networks in the District of Columbia and therefore has strong interest in the outcome of this proceeding.

Reply to Comments

In light of the reading of the comments to the Notice filed in the recent weeks, OCTO is convinced that the FCC will realize there is a large consensus supporting the Commission proposal to dedicate the 4.9 GHz to Public Safety services. Moreover, we felt that most of the comments filed, do agree on critical points of our own contribution, as they at least concurred to their intent, if not to the details of their implementation:

1. Eligibility: All commenting public safety agencies, associations and oversight bodies such as OCTO, strongly urge the FCC ("Commission"), as expeditiously as possible, to allocate

the entire 50 MHz of spectrum (4940-4990 MHz) within the designated 4.9 GHz band to "public safety services" as defined the traditional way in the Commissions FNPRM of Docket No.00-32 and part of Section 337(f) of the congressional directive of the Balanced Budget Act of 1997 (BBA-97)[2]. In addition, OCTO believes that, in the interests of maximizing the efficient use of the spectrum during non-emergency situations, and with a clear understanding of the crucial services that public utility and transportation groups offer the public at large, the Commission should allow public safety services to develop Memorandum of Understanding (MOU) that lead to sharing agreements with federal agencies and/or critical utilities that would extend interoperability and provide safe, accessible spectrum for these entities. OCTO, through its current oversight of shared radio networks that comprise both public utility providers, transportation groups and conventional public safety services in the 800 MHz band strongly believes in the efficacy and practicability of this shared arrangement with the understanding that should a grave public safety crises emerge, traditional first responder radio traffic would take precedence over all other traffic for the duration of the emergency.

2. **Licensing Mechanism**: Most of the comments, including ours, support a licensing scheme where the licenses are managed by the states while the Regional Planning Committees would support the technical issues. Some comments[3] advocate a licensing managed by the RPC on a per market basis.

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[1] *FCC 02-47, "In the Matter of The 4.9 GHz Band Transferred from Federal Government Use, WT Docket NO 00-32, Second Report and Order and Further Notice of Proposed Rulemaking" (February 27, 2002).*

[2] *FNPRM, Docket No.00-32, at para. 31*

[3] *Comments of United Telecom Council, July 7, 2002*

3. **Airborne Applications**: Although the Commission did make a decision to prohibit the use of airborne video links in the 4.9 GHz band to protect the adjacent band used for Radio Astronomy applications, numerous parties[4,5,6], including OCTO, petitioned to amend this rule, and proposed solutions to allow Public Safety to operate airborne video links without causing interference to the Radio Astronomy observatories. As those comments highlight, the use of Tactical Video Down Link (TVDL) by public safety helicopter services is a critical tool in effectively carrying forward the mandate of public safety service agencies. OCTO believes that TVDL, following the reasonable guidelines in OCTO's comment to the Commission dated July 8, 2002, should be implemented using a 10 MHz channel in the lower part of the 4.9 GHz band (4940-4950 MHz).

Given the very remote geographical locations of the vast majority of radio astronomy sites, and their distance from most urban centers and day-to-day public safety services areas of operations, it is the view of OCTO that any public safety/radio astronomy interference would prove highly un-likely. Moreover, given the very long term ("always listening") passive receive mode utilized by radio astronomy and in the event of a grave public safety crisis causing interference to a radio astronomy site due to a TVDL helicopter "fly by", would it not be possible to easily excise the relatively short and quite obvious "burst" of public safety interference from the weeks, months and years of compiled information received from outer space, thus rendering the bit of interference a slight nuisance when weighed against the potential of catastrophic loss of life and limb?

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[4] *Comments of APCO in response to petitions for Reconsideration and clarification, Association of Public-Safety Communications Officials-International, Inc June 28, 2002*

[5] *Petition for Reconsideration of the Los Angeles Sheriff Department, May 9, 2002*

[6] *Comments of Microwave Radio Communications, July 8, 2002,pg. 3, para.2*

Finally, OCTO noted in their comments to the Commission that, Radio Astronomy observatory incumbents themselves, such as Cornell University, that operates the Arecibo Observatory in Puerto Rico, and the National Academy of Sciences, through the National Research Committee on Radio Frequencies (CORF), *do not oppose airborne (TVDL) transmission as proposed by many state and local law enforcement agencies with the caveat that this application be limited to the lower part of the 4.9 GHz band (4940-4950 MHz) to limit any possible interference to radio astronomy observations*[7].

4. **Channel Plan**: Most of the channel plans proposed in the comments, include schemes allowing the aggregation or splitting of channels to enable different communication air interfaces such as MMDS or 802.11a, and also ease the integration of future technologies. OCTO believes that such a concept is reasonable and practical. For instance, any channel plan that is submitted to the Commission should accommodate a 10 MHz channel bandwidth in the lower part of the band to support the TVDL application deemed critical by most groups commenting to this NPRM. However, although OCTO agrees that some flexibility is highly desirable in managing the spectrum, too many possibilities of implementation could lead to significant interoperability hurdles, should a major emergency event occur. Even though the short-range propagation characteristics of the 4.9 GHz band will facilitate different channel plans in neighboring jurisdictions, those channel plans should allow their respective Public Safety Entities to support one or the other, either by using the same terminals across their borders (same technology in both jurisdictions), or by implementing their own communications system if necessary (compatible channel plan and frequency plan).

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[7] *Consolidated Opposition of Cornell University to Petitions for Reconsideration, July 1, 2002, section V, pg. 10, para. 1*

5. **Technology Standard**: The last point made in the above Section 4 is the reason that drives OCTO to urge the Commission to standardize the technologies to be used in the 4.9 GHz band. Adopting existing standards, easily rebanded to the 4.9 GHz spectrum, support rapid deployment of cost effective solutions. OCTO proposes a technology implementation that:

a. Optimizes the use of the spectrum by implementing proven spectrum-efficient technologies.

b. Permits easy interoperability and minimizes costs by implementing existing technology standards with slight enhancements, e.g. similar to 802.11a technology with additional security features.

c. Minimizes interference to secondary users in the band and adjacent bands.

6. **Fixed and Mobile Use of the 4.9 GHz band**: None of the comments filed did reject the use of the 4.9 GHz for Fixed Services. However several comments advocate a limitation of those fixed services to short term links deployed to support on the scene incident management. In the same spirit of comments we exposed above, OCTO believes that the Commission should empower the Public Safety entities to manage themselves the use of their spectrum, and that the only criteria for prohibiting fixed links to be deployed should be interference issues. That is the reason why in our comment, we proposed to limit the ERP of fixed links transmitters, and proposed as well reasonable interference level thresholds for coordination purposes. In addition, OCTO supports the implementation of Automatic Transmitter Power Control, as such a feature is widely recognized to enhance the spectrum usage efficiency.

CONCLUSION

OCTO is grateful for the opportunity to engage in discourse with the many dedicated public safety agencies, utility/infrastructure providers, equipment vendors and scientists engaged in mapping our universe using radio astronomy. Furthermore, OCTO fully appreciates the major opportunity presented by the FCC to provide public safety services significant spectrum relief, greatly needed to accomplish their mission.

Respectfully submitted,

OFFICE OF THE CHIEF TECHNOLOGY OFFICER,
GOVERNMENT OF THE DISTRICT Of COLUMBIA
441 4th Street, N.W., Suite 930
Washington, DC 20001
(202)-727-2277

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